

REMARKS

The application is believed to be in condition for allowance.

The claims have been amended to reflect the interview discussion and to improve the structural recitations of the invention as kindly suggested by the Examiner

There are no outstanding formal matters.

Rejections Under 35 USC 102, 103

Claims 1, 2, 5, 8, 10, 12, 13, 15-22, 24, 33 and 34 were rejected under section 102 as anticipated by ISHIHARA 2001/0050815.

Claim 11 was rejected under section 103 as obvious in view of ISHIHARA.

Claims 3, 4, 14, and 25-32 were rejected under section 103 as obvious in further view of SUZUSHI 2002/0110651.

Claims 6 and 7 were rejected under section 103 as obvious in further view of NIKOLOV 2004/0095637.

Claim 23 was rejected under section 103 as obvious in further view of KNOP 4,251,137.

Claims 1 and 21 are novel and non-obvious

Applicants' previous remarks continue to apply.

ISHIHARA does not disclose an optical device operative to apply a diffractive effect to produce a diffracted first image

and a phase modulation-retardation to produce a polarized second image, having the structure as recited by the claims.

ISHIHARA does not disclose the combination of 1) an encoding surface having a micro-relief pattern (22) and having a grating direction, the micro-relief grating having a predetermined spatial distribution in which the orientation of the grating direction varies across at least part of the encoding surface thereby to produce a predetermined diffracted first image when illuminated in use, with 2) a solid optically anisotropic layer (26) formed of a polymerized liquid crystal material operative to produce a phase modulation-retardation polarized second image, the local optical axes of the polymerized liquid crystal material lying substantially parallel to said encoding surface, and each axis being in respective alignment with the local grating direction of a corresponding adjacent part of the micro-relief grating so that the orientation of the local optical axes of the polymerized liquid crystal material of said optically anisotropic layer (26) varies across the encoding surface.

Additionally, ISHIHARA does not disclose such a structure wherein said optically anisotropic layer (26) imposes a predetermined spatial distribution of polarization modulation to produce a predetermined polarized second image when illuminated in use, so that both a diffracted image and a polarized image are produced in which both the diffracted image and the polarized image vary spatially across at least part of the overall image.

Further, as per claim 2, ISHIHARA does not such a micro-relief grating (22) provided on the surface of a substrate (20) in contact with said optically anisotropic layer (26) thereby to define said encoding surface.

With or without SUZUSHI, ISHIHARA would be disclose such as optical device, wherein said micro-relief grating (22) is formed on a surface of the optically anisotropic layer (26) thereby to define said encoding surface.

Also, with or without SUZUSHI, ISHIHARA would be disclose such a micro-relief grating (22) with one or more regions having a significant diffractive effect and one or more relatively weakly diffractive regions where there is little or no diffractive effect.

ISHIHARA does not disclose, as per claim 5, the micro-relief grating (22) including a plurality of discontinuous areas (74, 76, 78, 80, 82, 84, 86), each of which having a respective orientation of the micro-relief grating thereon, defining respective local optical axes of the optically anisotropic layer.

ISHIHARA does not disclose, as per claim 9, the micro-relief grating (22) is stepped, whereby the thickness of the optically anisotropic layer (26) is stepped by a step distance which is substantially greater than the structure pitch dimension, thereby to provide regions of respective selected retardations.

ISHIHARA does not disclose or suggest, as per claim 11, that the thickness of said optically anisotropic material (26), disregarding the micro-relief grating, varies linearly in at least one dimension.

The method claims are novel and non-obvious for the same reasons.

Reconsideration and allowance of all the claims are respectfully requested.

Should there be any matters that need to be resolved in the present application; the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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